

TRAYCONTROL® 300-C TP

twisted pair, flexible, screened, oil resistant, EMC-preferred type, NFPA 79



Technical data

- Flexible screened PVC data and control cable
- **Temperature range**
-25°C to +105°C
- **Nominal voltage**
300 V
- **Test voltage**
2000 V
- **Minimum bending radius**
flexing 6x cable Ø
- **Coupling resistance**
max. 250 Ohm/km
- **Radiation resistance**
up to 80x10⁶ cJ/kg (up to 80 Mrad)

Cable structure

- Tinned copper conductor, fine wire stranded, with AWG dimensions
- Core insulation of special PVC (AWG 22 - AWG 18 with transparent nylon skin)
- Core identification (pair) acc. to international colour code
- Cores stranded in pairs with optimal lay length
- Pairs stranded in layers with optimal lay length
- 1. Screening with special aluminium foil
- Drain wire
- 2. Tinned copper braided screen, approx. 85% coverage
- Separator
- Outer sheath of special PVC
- Sheath colour: grey (RAL 7001)
- With length marking in feet

Properties

- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

Tests

- Self-extinguishing and flame retardant acc. to CSA FT4
- **UL (AWG 22 - AWG 18):**
PLTC-ER, ITC-ER, CM, NFPA 79, OIL RES I & II, Class I Div. 2, NEC Art. 501, 725, 760 & 800, AWM 2517
- **UL (AWG 24 - AWG 26):**
CM, AWM 2517, rated OIL RES I & II, NEC Art. 725, 760 & 800, NFPA 79
- **CSA:**
CSA CMG FT4, AWM I/II A/B FT4

Note

Advantages

- Highly flexible, easy to install
- Oil resistant to OIL RES I & II

Available on request

- PUR or TPE outer sheath
- Sheath colour to suit customer requirement

Application

HELUKABEL® TRAYCONTROL® 300-C TP is a screened, twisted pair data and control cable. Cross-sections with PLTC-ER and ITC-ER approval suitable for open, unprotected installation in cable trays to the machine; their outstanding oil resistance (OIL RES I & II) makes them ideally suited as connecting and joining cables and also for control, signal and measuring systems in industrial plants. The flexible cable structure facilitates installation inside and outside of machines and switch cabinets. The double-screening with aluminium foil (100% coverage) and copper braid (approx. 85% coverage) guarantee superior EMC protection. Applications: tool machines, control panels, measuring devices, production automation, cable ducts, renewable energies.

EMC = Electromagnetic compatibility

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

Part no.	Cross-section mm ²	No.pairs x Outer Ø No.cores x AWG-no.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
61999	0,154	1 x 2 x 26	4,4	16,0	32,0
59760	0,154	2 x 2 x 26	5,6	20,0	39,0
59761	0,154	3 x 2 x 26	5,9	24,0	47,0
59762	0,154	4 x 2 x 26	6,3	27,0	55,0
59763	0,154	5 x 2 x 26	6,8	31,0	68,0
59764	0,154	6 x 2 x 26	7,5	50,0	86,0
59765	0,154	7 x 2 x 26	7,5	52,0	92,0
59766	0,154	8 x 2 x 26	8,0	54,0	97,0
59767	0,154	10 x 2 x 26	9,1	60,0	111,0
59768	0,154	12 x 2 x 26	9,4	67,0	141,0
59769	0,154	14 x 2 x 26	10,4	75,0	150,0
59770	0,154	15 x 2 x 26	10,8	77,0	154,0
59771	0,154	16 x 2 x 26	10,8	80,0	155,0
59772	0,154	18 x 2 x 26	11,3	84,0	170,0
59773	0,154	20 x 2 x 26	11,8	98,0	183,0
59774	0,154	22 x 2 x 26	12,3	104,0	207,0
59775	0,154	24 x 2 x 26	13,0	112,0	228,0
59776	0,154	25 x 2 x 26	13,0	114,0	239,0

Part no.	Cross-section mm ²	No.pairs x Outer Ø No.cores x AWG-no.	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km
59777	0,241	1 x 2 x 24	4,6	16,0	46,0
59778	0,241	2 x 2 x 24	6,2	27,0	53,0
59779	0,241	3 x 2 x 24	6,5	32,0	65,0
59780	0,241	4 x 2 x 24	7,2	37,0	79,0
59781	0,241	5 x 2 x 24	7,8	55,0	98,0
59782	0,241	6 x 2 x 24	8,3	66,0	114,0
59783	0,241	7 x 2 x 24	8,3	60,0	121,0
59784	0,241	8 x 2 x 24	8,9	74,0	129,0
59785	0,241	10 x 2 x 24	10,8	109,0	152,0
59786	0,241	12 x 2 x 24	11,0	116,0	189,0
59787	0,241	14 x 2 x 24	11,5	121,0	213,0
59788	0,241	15 x 2 x 24	12,1	132,0	225,0
59789	0,241	16 x 2 x 24	12,1	142,0	227,0
59790	0,241	18 x 2 x 24	12,6	147,0	238,0
59791	0,241	20 x 2 x 24	13,2	161,0	270,0
59792	0,241	22 x 2 x 24	13,8	171,0	300,0
59793	0,241	24 x 2 x 24	14,5	230,0	321,0
59794	0,241	25 x 2 x 24	14,5	231,0	340,0

Continuation ▶

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Part no.	Cross-section mm ²	No.pairs x Outer Ø No.cores app. mm x AWG-no.	Cop. weight kg / km	Weight app. kg / km
59795	0,382	1 x 2 x 22	6,9	17,0
59796	0,382	2 x 2 x 22	9,3	37,0
59797	0,382	3 x 2 x 22	9,7	45,0
59798	0,382	4 x 2 x 22	10,5	54,0
59799	0,382	5 x 2 x 22	11,4	63,0
59800	0,382	6 x 2 x 22	12,3	73,0
59801	0,382	7 x 2 x 22	12,3	79,0
59802	0,382	8 x 2 x 22	13,2	88,0
59803	0,382	10 x 2 x 22	15,9	107,0
59804	0,382	12 x 2 x 22	16,6	122,0
59805	0,382	14 x 2 x 22	17,4	138,0
59806	0,382	15 x 2 x 22	18,2	154,0
59807	0,382	16 x 2 x 22	18,2	161,0
59808	0,382	18 x 2 x 22	19,1	198,0
59809	0,382	20 x 2 x 22	20,1	211,0
59810	0,382	22 x 2 x 22	21,0	218,0
59811	0,382	24 x 2 x 22	23,1	230,0
59812	0,382	25 x 2 x 22	23,1	239,0
59813	0,616	1 x 2 x 20	7,4	26,0
59814	0,616	2 x 2 x 20	10,0	56,0
59815	0,616	3 x 2 x 20	10,5	72,0

Part no.	Cross-section mm ²	No.pairs x Outer Ø No.cores app. mm x AWG-no.	Cop. weight kg / km	Weight app. kg / km
59816	0,616	4 x 2 x 20	11,4	92,0
59817	0,616	5 x 2 x 20	12,4	107,0
59818	0,616	6 x 2 x 20	13,4	122,0
59819	0,616	7 x 2 x 20	13,4	132,0
59820	0,616	8 x 2 x 20	15,3	144,0
59821	0,616	10 x 2 x 20	16,4	180,0
59822	0,616	12 x 2 x 20	18,3	202,0
59823	0,616	14 x 2 x 20	19,2	221,0
59824	0,616	15 x 2 x 20	20,1	232,0
59825	0,616	16 x 2 x 20	20,1	257,0
59826	0,616	18 x 2 x 20	21,2	282,0
59827	0,616	20 x 2 x 20	22,7	307,0
59828	0,616	22 x 2 x 20	23,8	322,0
59829	0,616	24 x 2 x 20	25,0	342,0
59830	0,616	25 x 2 x 20	25,0	361,0
59831	0,963	1 x 2 x 18	7,8	28,0
59832	0,963	2 x 2 x 18	10,8	57,0
59833	0,963	3 x 2 x 18	11,3	75,0
59834	0,963	6 x 2 x 18	15,4	139,0
59835	0,963	9 x 2 x 18	17,9	212,0
59836	0,963	15 x 2 x 18	21,9	358,0

Dimensions and specifications may be changed without prior notice. (RN02)